

**COMPREHENSIVE ANALYSIS OF EXISTING LEARNING MANAGEMENT SYSTEMS
(LMSs)**

April, 2002

Name of institution:	<i>Ceská pojišťovna a.s. The Czech Insurance Company p.l.c. (CIC)</i>
Type of institution:	<i>An Insurance company</i>
Address:	<i>Spálená 16, 113 04 Praha/Prague 1; Na Strži 63 – Motokov, 140 00 Praha/Prague 4, the Czech Republic</i>
Telephone:	<i>+420 2 6131 9971</i>
Fax:	<i>+420 2 6131 9959</i>
Email:	<i>svagner@cpoj.cz</i>
URL:	<i>http://www.cpoj.cz</i>
Name of training manager:(Optional)	
LMS used:	<i>Tutor2000 by the firm Kontis</i>
URL of LMS:	<i>http://www.e-learn.cz; http://www.kontis.cz</i>
Language of LMS:	<i>Czech</i>
Number of years in use:	<i>In the Czech Insurance Company for about 1 year</i>
Other LMSs used:	<i>--</i>
Number of students in the system:	<i>4000</i>
Number of courses available:	<i>is not limited (currently approx. 25)</i>
Typical duration:	<i>2 hours</i>
Number of tutors in the system:	<i>currently 6-10</i>

The Czech Insurance Company p.l.c. (CIC) is a composite insurer providing a wide range of life and non-life classes of insurance. For many years now, it has been the biggest insurer in the Czech market. In 2000, its overall market share (by premiums written) was 38.9%: market share in life assurance was 41.2% and in non-life it was 37.7%.

The company uses TUTOR2000 as a Learning Management System. By this company the interrelations among Content Creation Tool (CCT), Learning Management System (LMS), Student Management System (SMS) and Accounting System (AS) are clearly seen. The company was deciding at the beginning whether to implement a combination of CCT and LMS or not, but then they have decided to implement them separately. AS had been already in use when the e-learning systems were launched and today in order not to duplicate databases there is one student database (that includes also data about student attendance) already imported in the AS as well as in the LMS, that means there is the link/connection between SMS and LMS as well as SMS and AS.

This analysis is divided into six parts.

1 Course development tools

2 Student support tools

3 Tutor support tools

4 Administration (student database and records)

5 Technology (quality of software)

6 Price

1 Course development tools

1.1 Course creation. How satisfactory was the LMS for course creation?

The course creation and its operation are divided. LMS does not influence the course creation. For the course creation we have independent content creation tools/author tools (ToolBook II, Macromedia Flash, etc.). [CIC]

1.2 Structure and didactic flexibility - openness. In the creation of course materials did the LMS permit didactic flexibility? Was the structure open to differing didactic possibilities?

The didactic flexibility of the system is sufficient; it permits the interconnection/link among all usual didactic elements (graphics, animation, simulation, video, audio). [CIC]

1.3 Teacher userfriendliness. How easy was the LMS to use by teachers and course developers?

The content creation tools do not require any special skills - more difficult courses are created according to the basic materials by a certain team. [CIC]

1.4 Support for graphics, audio and video, moving image. Did the LMS support the provision of graphical materials, moving images, audio and video in the course content?

Yes - we use common Internet technologies. [CIC]

1.5 Questioning, assessment, assignments. What provision was made by the LMS for student questioning and assessment and the design of student assignments?

All the tests (those generated automatically as well as those created manually) have the character of independent courses that means they are the same objects like usual courses within the LMS. [CIC]

2 Student support tools

2.1 Interactivity possibilities. What provision does the LMS make for student interaction?

Whichever communication software applied in Intranet or Internet (NetMeeting, MSN Messenger etc.), e-mail. [CIC]

2.2 Online student to student communication (synchronous and asynchronous). What facilities does the LMS provide for student communication to other students and how successful is it? Is both synchronous and asynchronous communication between students supported?

Please see above + moderated discussion groups. We do not follow/watch the success of this communication instrument - it is a support tool. [CIC]

2.3 Online student to tutor/institution communication (synchronous and asynchronous). What facilities does the LMS provide for student communication to the tutor or to the institution's administration and how successful is it? Is both synchronous and asynchronous communication supported? Are these support services available 24 hours a day?

Please see points 2.1 and 2.2. The whole e-learning system is available 24 hours per day. [CIC]

2.4 Resources, library, references. What facilities does the LMS provide for student acquisition of resources required by the course, especially library resources and references to required readings?

Most of the courses use as a resource internal materials of the company and the system of internal regulations/directives. [CIC]

2.5 *Feedback on work and assignments.* What is the quality of provision of feedback to students on their work and assignments?

A higher percentage of the courses concern directly products of the insurance company that means these courses are necessary for the knowledge and sale of the products. [CIC]

3 *Tutor Support tools*

The current version of the system does not provide any support tools for teachers - the position of the teacher does not exist in our company. There are only people who guarantee for the content of the electronic courses and these are employees of expert departments. The whole management and organisation of the study is governed by the education department. [CIC]

3.1 *Tracking students - database questions.* How user friendly is the LMS for tutors wishing to track their group(s) of students and retrieve data from the student database?

3.2 *Group management tools.* What facilities are provided by the LMS to the tutors for managing their group(s) of students?

3.3 *Preparation of questions and assignments by tutor.* How successful is the LMS in providing tutors with user friendly and didactically successful tools for the design of student questions and assignments?

3.4 *Course planning for students (monitoring pace).* What tools are provided by the LMS to tutors to enable them to monitor and plan student progress?

LMS makes notes of all interactions of the student with the electronic course that means there is a complete study protocol available. [CIC]

3.5 *User-friendly administrative systems between tutor and institution.* What provision does the LMS make for successful tutor to institution communication?

4 *Administration (student database and records)*

4.1 *Enrolment procedures and fee paying.* What facilities does the LMS provide for student enrolments, course allocations and payment of fees?

There are two groups of courses - obligatory and public. Every employee may apply for a public course without any further limitations. The obligatory courses are prescribed to the students according to their study plan/programme. There are no fees for internal courses within the company. [CIC]

4.2 *Passwords and security.* How successfully does the LMS handle student access to the system and the security of all student interactions with the system?

The whole system is working in Intranet, the security is solved by standard means of IT. [CIC]

4.3 *Student records database.* How successful is the system's student database, especially for data storage and data retrieval.

I do not understand this question properly. The database must be successful on 100%. The whole system works on-line. [CIC]

4.4 *Examination and certification records.* What structures are provided for recording of data and results leading to examination and certification?

There is one database in use, where all the student interactions with the course are marked, that means also the test results. [CIC]

4.5 *Course, class and tutors database.* What facilities are provided for administration of courses, classes and tutors?

We do not use this type of database. [CIC]

5 *Technology (quality of software)*

5.1 *Server - hardware and software options.* What is the quality of server hardware and software options? How is the system integrated with existing software?

The system is installed in the Intranet on the server of the company (web-farm, load balancing), the database is on SQL cluster. The whole system is accessible in the Intranet (HTML and ASP technology). [CIC]

5.2 *Client - hardware and software options.* What is the quality of client hardware and software options? Does the system permit meta tagging?

The system requirements on the client are: a standard PC (minimum Pentium 200 MHz, 32MB RAM, Internet Explorer min. 5.5 SP2, Microsoft Virtual Machine). [CIC]

5.3 *Flexibility of didactic structure; updating, adaptability.* Is the didactic structure flexible or is it determined by the technology? How adaptable is the technology to updates and to new technology that becomes available to the market?

In the whole system there are Internet technologies in use - all the courses are in the form of DHTML. [CIC]

5.4 *Limitation of size (number of students, courses, tutors..)* How satisfactory is the LMS for handling varying numbers of students, courses, tutors? How does it cope with 100, 1000, or 10000 students and large course databases?

At the moment I do not know to judge this point. Until now the whole operation had been without serious capacity problems. [CIC]

5.5 *Speed of system.* How is the speed of the system and student satisfaction? How does it cope with downloading courses and high bandwidth materials?

The speed depends on the technical equipment of the client and on the Intranet lines. [CIC]

6 *Price*

6.1 *Cost of the LMS (Learning Management System).* What is the cost of the LMS to the institution?

6.2 *Annual fee.* What fees have to be paid annually for the system by the institution?

6.3 *Student Enrolment fee (100 students, 1000 students, 10000 students.)* How do fees to use the LMS vary when the student base is 100 students, 1000 students, 10000 students? Is online invoicing available?

6.4 *Maintenance costs: staff involved in management, IT specialists, trainers, etc* What is the maintenance course to the institution of the LMS and what staff resources are need to maintain it and keep it functioning?

The whole system maintenance is ensured by the system administrator with the co-operation of course creators. [CIC]

6.5 *Training of teachers and learners and system users.* What costs are involved in staff and student training to use the LMS system?

Conclusion: Overall evaluation:

The current system completely covers our requirements. Our main focus is on the creation of the electronic courses. The management of the whole process is governed by the LMS system (TUTOR2000). [CIC]

What features would you like to see included in this LMS in the future?

The possibility to apply more demanding technologies (Streaming video, videoconferences etc.) - it depends mainly on the quality of the technical equipment of the client's workstation. [CIC]